

Date: Thursday, 17/01/2008 9:12:29 AM  
 User: Linda Lacelle

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : MID TUBE ASSEMBLY  
 Job Number : 36807  
 Estimate Number : 11446  
 P.O. Number :  
 This Issue : 17/01/2008 S.O. No. :  
 Prsht Rev. : NC Part Number : D3391013  
 First Issue : / / Type : LANDING GEAR Drawing Number : D3391 REV G  
 Previous Run : 36806 Drawing Revision : G  
 Material :  
 Due Date : 31/01/2008 Qty: 1 Um: Each  
 Written By :  
 Checked & Approved By :  
 Comment : Est. A 05.12.18 New Issue EC  
 Est. B 06.02.09 Dwg rev.D EC  
 Est Rev:06-03-28 Update Manufacturing Instructions JLM  
 est rev D 07.03.14 dwg Rev F EC  
 Est Rev:E ECN 1056 07-11-13 DD verified by: EC

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 D25001100 Skidtube Extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

SKIDTUBE EXTRUSION

Pick:

Qty Part Number Description Batch

1 D2500-1-100 Extrusion

B24593

DP 8-1-17

2.0 D3391011 Fwd Tube Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Fwd Tube Assembly

Batch:

B35834

DP 8-1-17

3.0 LANDING GEAR 1 LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Cut tube to finish length as per Dwg D3391

2-Drill pilot holes including "B" holes using DT8796 as per Dwg D3391

3-Open float bag holes as per Dwg D3391

4-C'sink float bag holes as per Dwg D3391

5-Open remaining holes as per dwg D3391

6- Locate electric step holes 41.5000" from fwd end and drill using DT 8393

DP 8-1-17

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Drawing Name: MID TUBE ASSEMBLY

Job Number: 36807

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

7- Open electric step holes 0.332" per dwg D3391 (section L-L)

8- Open electric step holes 0.250" per dwg D3391 (section M-M)

9- Open electric step holes 0.250" per dwg D3391 (section LL-LL)

10- Remove .030" from Fwd indexing Ridge as per Dwg D3391

11- Remove indexing ridge on Fwd & Aft end of skid tube as per Dwg D3391

12- Deburr

13- Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.208" holes with paint marker

14- Open wearplate holes of D3391-013 assembly detail section G-G to Ø0.250" (14 holes) as per Dwg D3391

15- Open wearplate holes of D3391-013 assembly detail section H-H to Ø0.257" and c'sink (20 holes) as per Dwg D3391

16- Open .375" holes to .438"

17- Insert D3391-011 and clip in place with wearplate holes, transfer drill saddle holes as per dwg D3391.

18- C'sink holes for crossbolt spacers.

19- Deburr and blow out all chips from inside tube

4.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1  
Touch-up alodine in D3391-011

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION

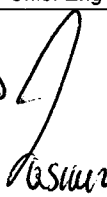




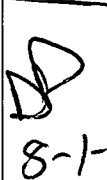
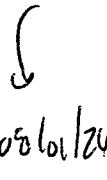
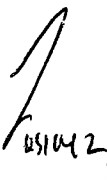



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-013 PAR #: N/A Fault Category: Roll Landing Gear NCR: Yes No DQA: D Date: 08/01/22  
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: <u>36807</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/01/22	#30	The 6th hole from RAD END of the D3391-013 (mistake) is off by 0.500". R.C the Drill Sig DT8796 was machines wrong.		Fill in incorrect hole with weld as per QSE 004. <u>AK3#A/06390</u>	BE 08/01/22			
				<del>grind weld flush</del> Drill hole in correct location as per <del>QSE 004</del> Dwg 3391 Rev G. <u>See NCR 08-0134</u>	 8-1-22	 08/01/22	 08/01/22	 08/01/22

NOTE: Date & initial all entries

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Drawing Name: MID TUBE ASSEMBLY

Job Number: 36807

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

7.0

D33891

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEB

Pick:

Qty Part Number Description Batch

1 D3389-1 Web

A/R Sikaflex-241/-291

Sikaflex expire date:

Start: ~~8-1-22~~ Time: 12:40 PM

Finish: 8-1-23 Time: 1:00

B35807  
M105469  
8-1-30

DP 8-1-22

8.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Bond web in place as per Dwg D3391 & QSI 015.

\*\*\*\*\*Ensure Web Aligment \*\*\*\*\*

DP 8-1-22

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Inspect each insert using DT8821

BE 08/01/23

10.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Weld crossbolt spacer as per dwg D3391 & QSI 004

CROSS BOLT SPACER D3681-1 B35814 (4R) B35738 (8R)  
ALUMINUM 100 M106390 BE 08/01/23

11.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

PD 08/01/25 (1)

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

BE 08/01/25 (4)

13.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Use paint screws to mask inserts.

M 106379

(IX)  
M-1 08/01/25

**Dart Aerospace Ltd**

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QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 36807

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FL 08/01/25 (1)

15.0

ALS41032130

Insert



Comment: Qty.: 24.0000 Each(s)/Unit Total: 24.0000 Each(s)

INSERT

batch:

M105729

or equivalent

per QSI 017

m-h

16.0

ALS4428165

Inserts



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Inserts

batch:

M6988A

m-h

17.0

D36721

PHENOLIC WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

PHENOLIC WASHER

batch:

B34470

m-h

18.0

D36723

PHENOLIC WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

PHENOLIC WASHER

batch:

B34471

m-h

19.0

AN960C10L

washer



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

WASHER

batch:

M106552

m-h

20.0

AN960C416L

WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

WASHER

batch:

M100993

\* m-h

(1x)

08/01/25

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: PD Date: 08/01/09  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Job Number: 36807

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

21.0

MS27039C109

SCREW



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

SCREW

batch:

M17831

M. J.

22.0

MS27039C408

SCREW



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

SCREW

batch:

M17831

M. J.

23.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Assemble as per dwg D3391

M. J.

08/01/25

(1X)

24.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/01/28 (1)

25.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

PPA 38922

08/01/29 (1)

26.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/01/29 (1)

Job Completion



08-01-29

**Dart Aerospace Ltd**

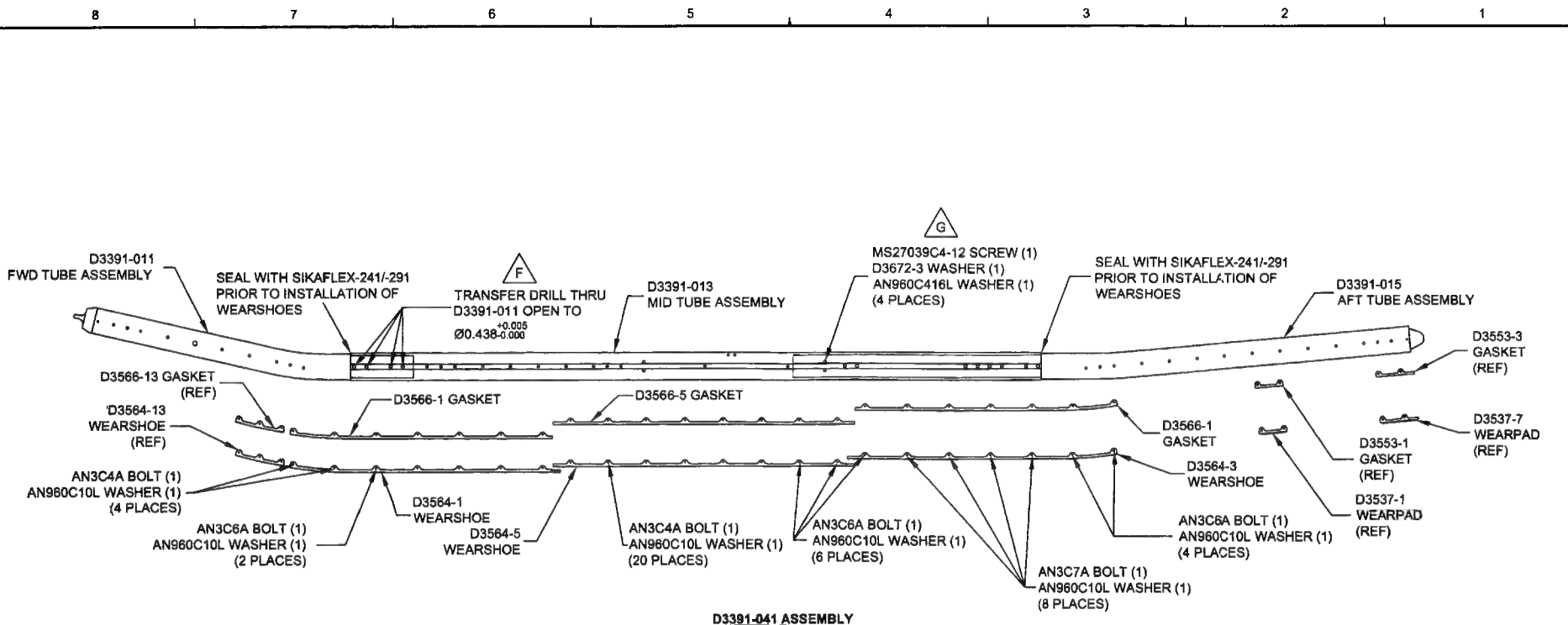
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



**D3391-041 ASSEMBLY**

**RELEASED**  
07-11-06

**D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST**

QTY	PART NUMBER	DESCRIPTION
X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
4	D3672-3	WASHER
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

**GENERAL NOTES**

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH  
AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH  
LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS  
OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES  
FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT  
WHERE INDICATED.

G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	07.07.31		
<b>DART AEROSPACE USA, INC</b> PORT HADLOCK, WA DRAWING NO. D3391 SHEET 1 OF 8 TITLE 412 FLOAT SKIDTUBE SCALE NTS COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC			

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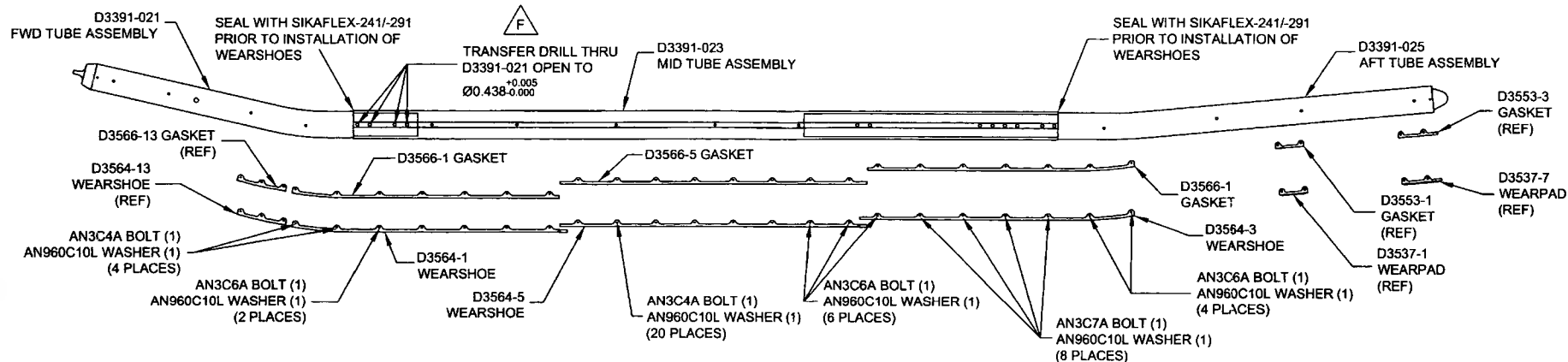
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**NOTE:** Date & initial all entries



**D3391-043 ASSEMBLY**

**RELEASED**  
07.11.21

**D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST**

QTY	PART NUMBER	DESCRIPTION
X	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER

**GENERAL NOTES**

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.

DESIGN	AM	<b>DART AEROSPACE USA, INC</b>
DRAWN	JLC	PORT HADLOCK, WA
CHECKED	JP	DRAWING NO. D3391
MFG. APPR.	JP	REV. G
APPROVED	JP	SHEET 2 OF 8
DE APPR.	JP	TITLE SCALE
DATE	07.07.31	412 FLOAT SKIDTUBE NTS
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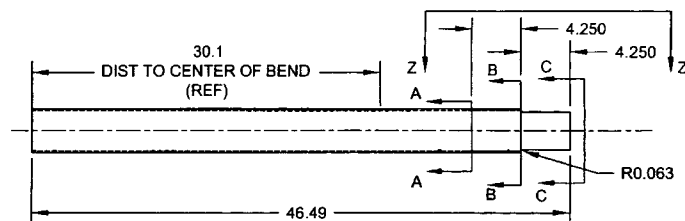
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

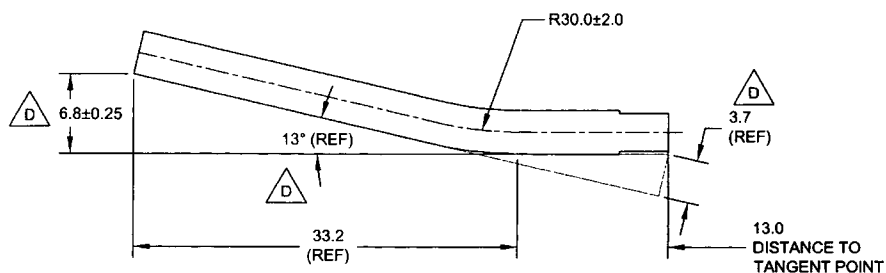
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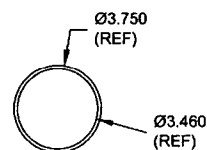
**NOTE:** Date & initial all entries



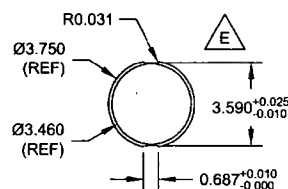
**D3391-1 CUTTING DETAIL**  
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



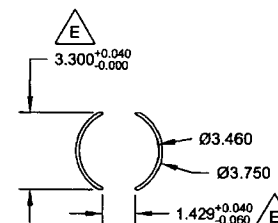
**D3391-011/-021 BENDING DETAIL**  
(MAKE FROM D3391-1)



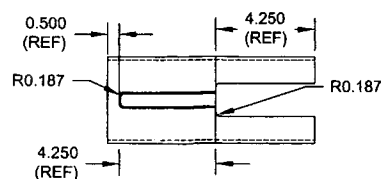
**SECTION A-A**  
(SCALE 1:5)



**SECTION B-B**  
(SCALE 1:5)



**SECTION C-C**  
(SCALE 1:5)



**VIEW Z-Z**  
(SCALE 1:5)

RELEASED  
07-11-06 MP

DESIGN		<b>DART AEROSPACE USA, INC</b>
DRAWN		PORT HADLOCK, WA
CHECKED		DRAWING NO. REV. G
MFG. APPR.		D3391 SHEET 3 OF 8
APPROVED		TITLE SCALE
DE APPR.		412 FLOAT SKIDTUBE 1:10
DATE	07.07.31	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC

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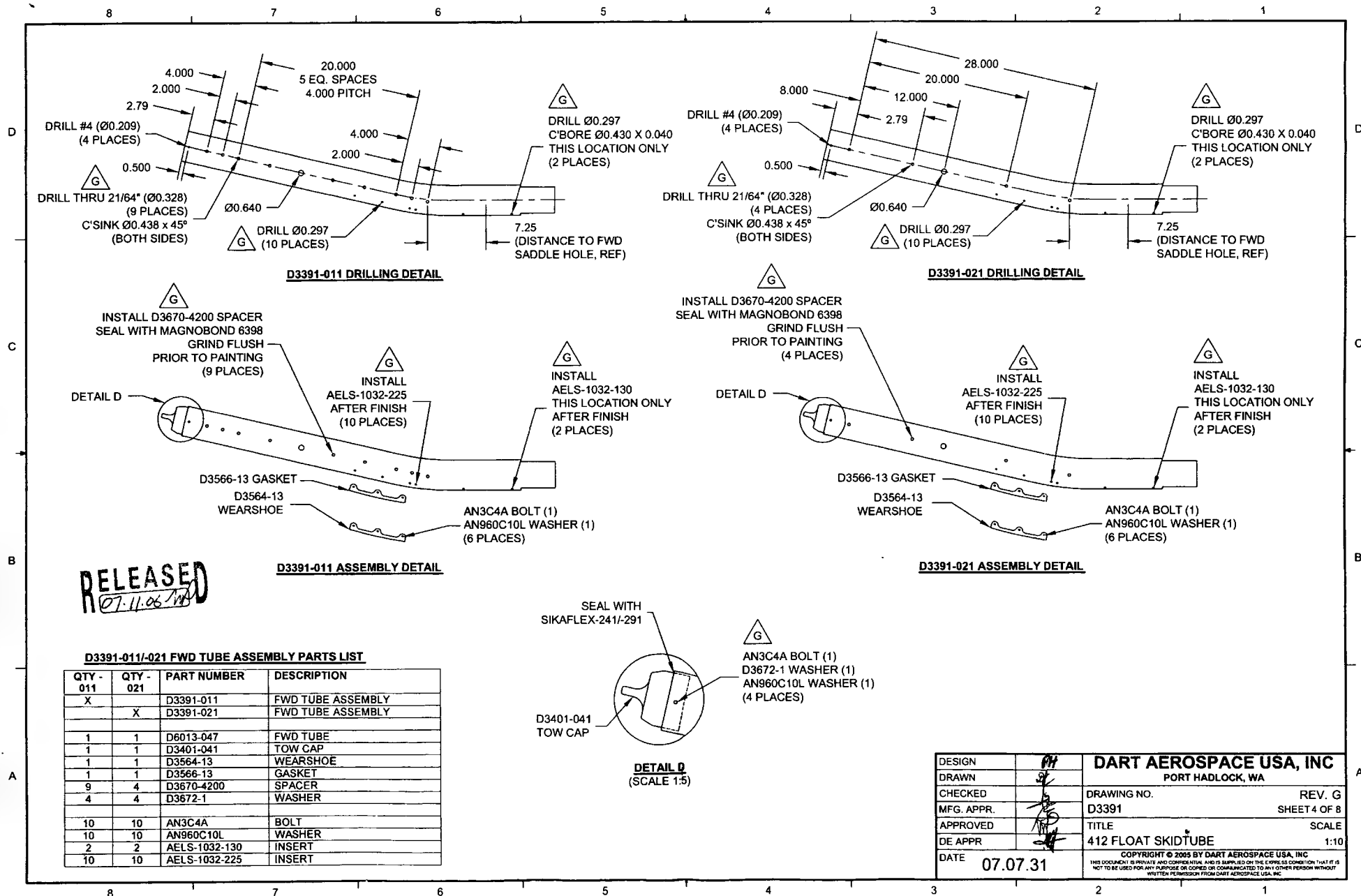
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**NOTE:** Date & initial all entries





**Dart Aerospace Ltd**

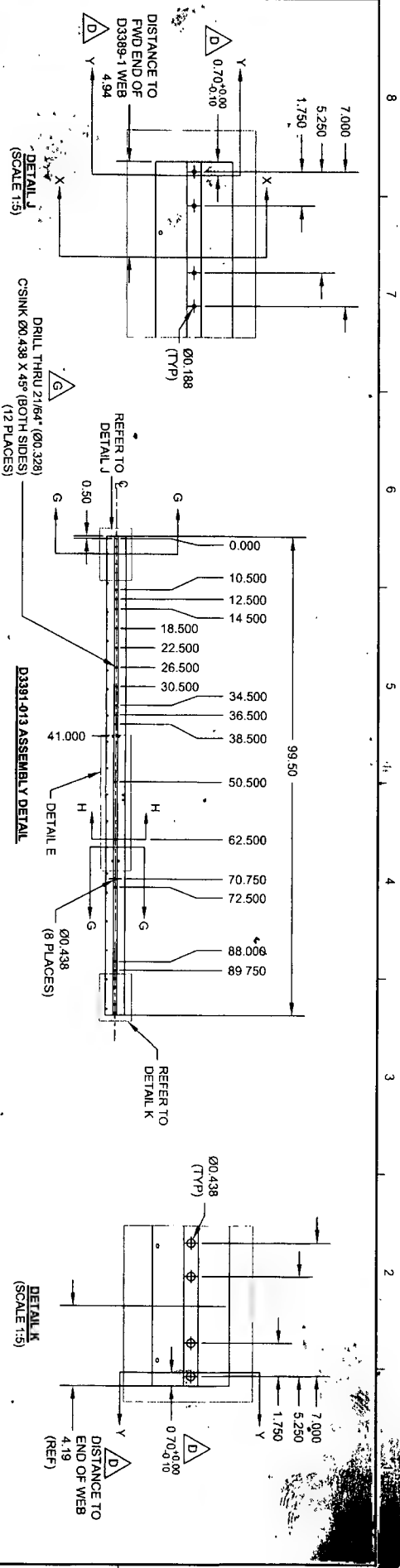
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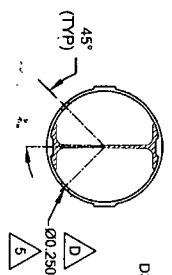
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

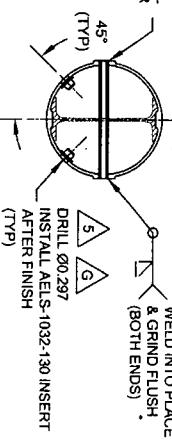
**NOTE:** Date & initial all entries



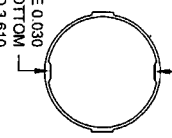
SECTION G-G  
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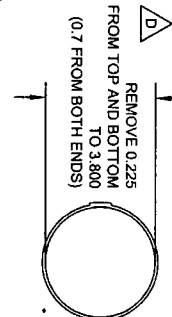
SECTION H-H  
(12 PLACES)  
(SCALE 1:4)



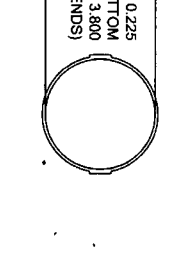
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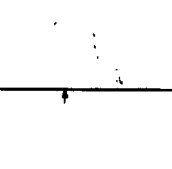
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(SCALE 1:4)



SECTION M-M  
(SCALE 1:4)



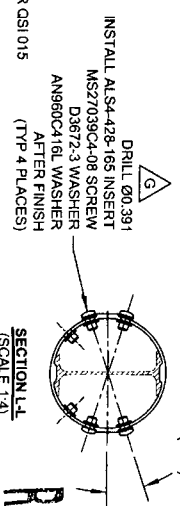
SECTION N-N  
(SCALE 1:4)



D3391-013 MID TUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
-013	D3391-013	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
12	D3681-1	SPACER
4	D3672-1	WASHER
4	D3672-3	WASHER
224	AEIS-1032-130	INSERT
4	AL54-428-165	INSERT
4	AN860C10L	WASHER
4	AN860C416L	WASHER
4	MS27039C1-09	SCREW
4	MS27039C4-08	SCREW

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-2411-291 PER CSI 015
- 3) WELDING: PER DART CS 004



RELEASED  
07-11-06

DESIGN	DRAWN	CHKD	DATE	07.07.31
CHECKED				
WFG. APPR				
APPROVED				
DE APPR				
TITLE	DART AEROSPACE USA, INC.			
412 FLOAT SKIDTUBE	PORT HADLOCK, WA			
SCALE	REV. G			
1:20	SHEET 5 OF 8			

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**Dart Aerospace Ltd**

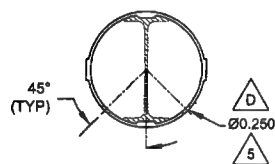
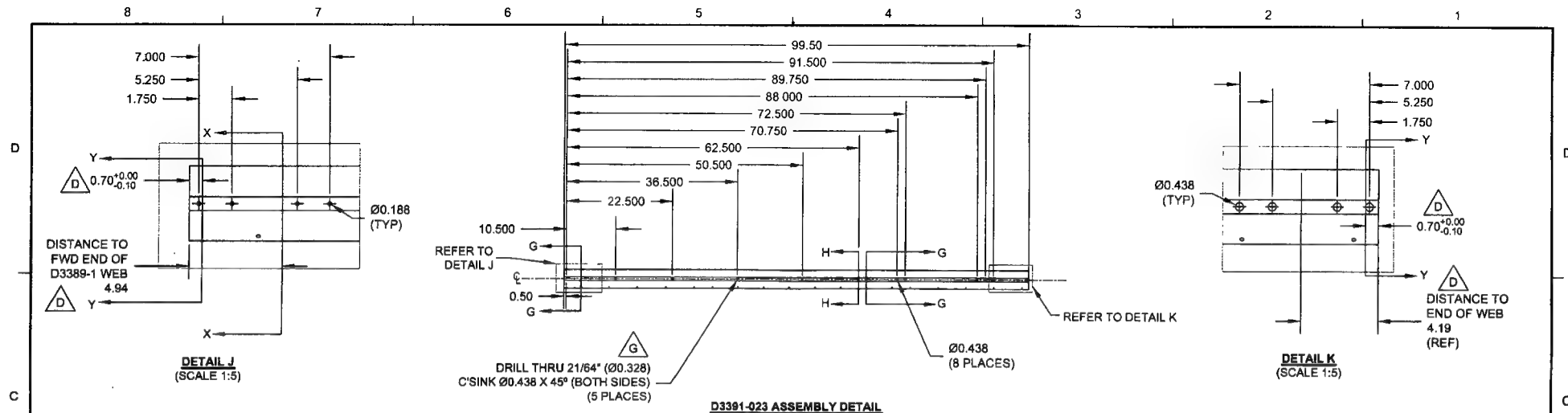
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

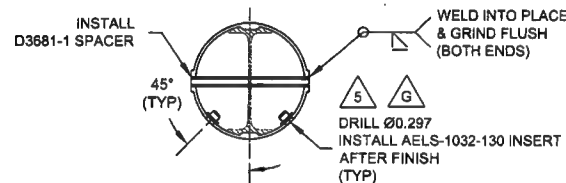
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

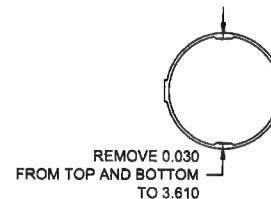
**NOTE:** Date & initial all entries



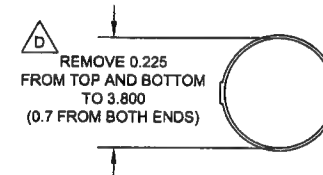
**SECTION G-G**  
(SCALE 1:4)



**SECTION H-H**  
(SCALE 1:4)



**SECTION X-X**  
(SCALE 1:4)



**SECTION Y-Y**  
(SCALE 1:4)

**D3391-023 MID TUBE ASSEMBLY PARTS LIST**

QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

**D3391-023 MID TUBE ASSEMBLY**

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- 3) WELDING: PER DART QSI 004

**RELEASED**  
07.11.06/11

DESIGN	AH	<b>DART AEROSPACE USA, INC</b>
DRAWN	JC	PORT HADLOCK, WA
CHECKED	JC	DRAWING NO. D3391
MFG. APPR.	JC	REV. G
APPROVED	JC	SHEET 6 OF 8
DE APPR	JC	TITLE 412 FLOAT SKIDTUBE
DATE	07.07.31	SCALE 1:20

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**Dart Aerospace Ltd**

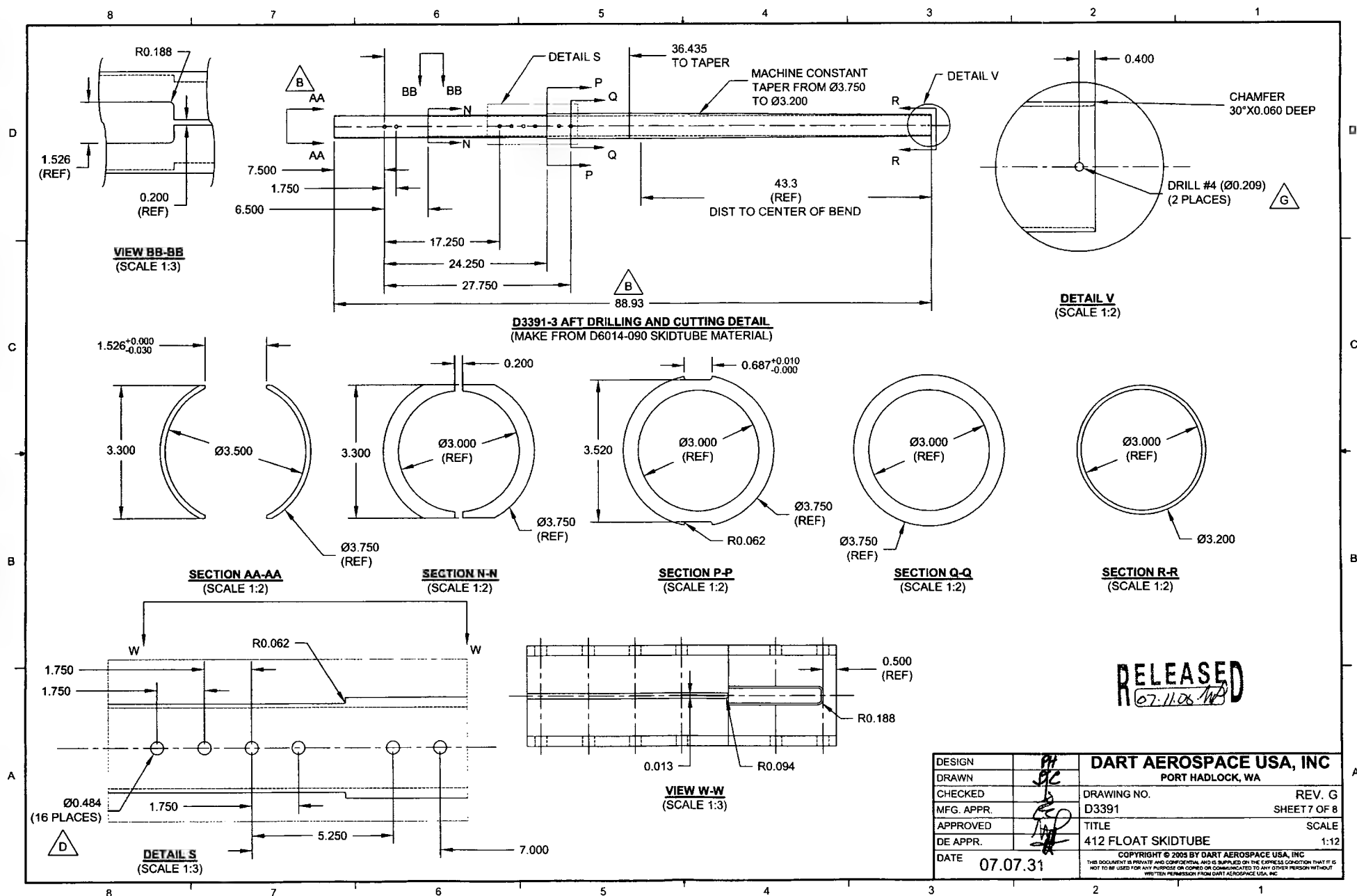
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

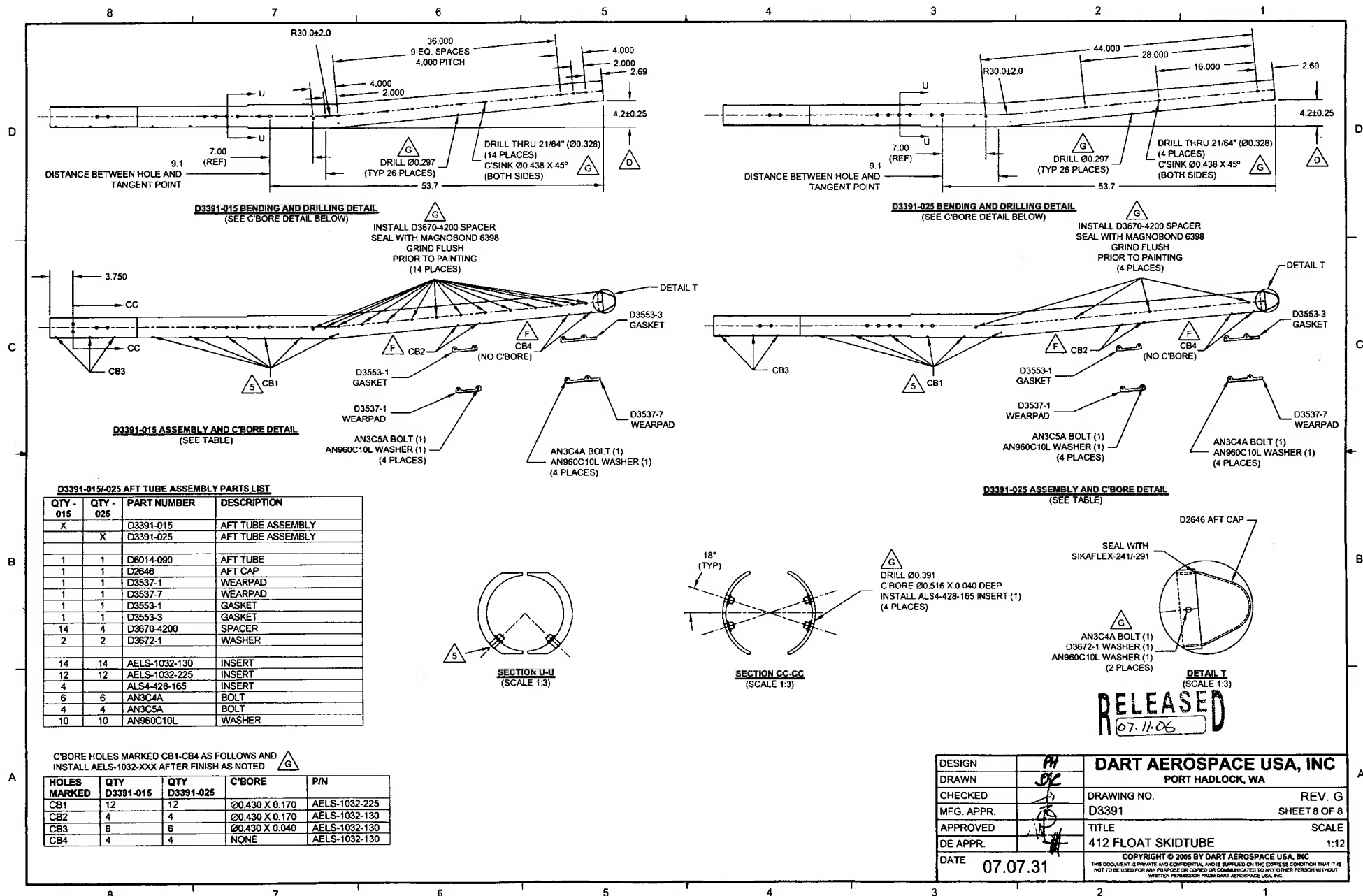
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QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries





W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 145

AWS D17 1.2001  
QUALIFICATION TEST RECORD

Name Barclay E.  
Joint Welding Procedure GTAU  
Part number and Job number D339 102 / B 35162

TEST WELDS REQUIRED

BASE METAL Aluminium  
Penetration Complete ☐ Partial ☒  
Current AC ☒ DC ☐  
WELDING PROCESS TIG  
Single Weld ☒ Double Weld ☐  
Backing YES ☐ NO ☒

	Position	Vertical	Down	Up
Sheet Groove	1G <input type="checkbox"/>	2G <input type="checkbox"/>	3G <input type="checkbox"/>	4G <input type="checkbox"/>
Tube Groove	1G <input type="checkbox"/>	2G <input type="checkbox"/>	5G <input type="checkbox"/>	6G <input type="checkbox"/>
Sheet Fillet	1F <input type="checkbox"/>	2F <input type="checkbox"/>	3F <input type="checkbox"/>	4F <input type="checkbox"/>
Tube Fillet	1F <input type="checkbox"/>	2F <input type="checkbox"/>	4F <input type="checkbox"/>	5F <input type="checkbox"/>

Crossbolt Spacer Welded into Skid tube

TEST RESULTS

Visual Pass ☒ Fail ☐  
Penetration Pass ☒ Fail ☐  
Crossbolt Spacer Pass ☒ Fail ☐

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

Date of Test Coupon 08-01-13 Qualifier Pat. Duval